

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-158267

(43)Date of publication of application : 16.06.1998

(51)Int.Cl.

C07D487/14

A61K 31/52

A61K 31/52

A61K 31/52

A61K 31/52

(21)Application number : 08-319478

(71)Applicant : MEDEI SCI PURANINGU:KK

(22)Date of filing : 29.11.1996

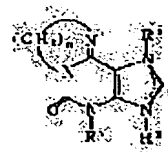
(72)Inventor : MIYAMOTO KENICHI  
KASUGAI SHOHEI  
WAKI YOSHIHIRO  
SAWANISHI HIROYUKI

(54) NEW PURINE DERIVATIVE AND MEDICINAL COMPOSITION COMPRISING THE SAME

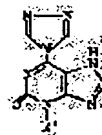
(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a new purine derivative, having an oxo group and a specific condensed ring group at specified sites, capable of selective inhibiting actions on cyclic adenosine 3',5'-monophosphate (AMP)-specific phosphodiesterases and useful as a bronchodilator or a therapeutic agent for osteopathy.

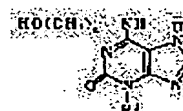
SOLUTION: This compound is represented by formula I [R1 to R3 are each H, a (lower alkyloxy or acyl-substituted) 1-6C alkyl; (n) is 2-4], e.g. 4-propyl-4,5,7,8-tetrahydro-1H-imidazo[1,2-i]purin-5-one. The compound represented by formula is obtained by reacting, e.g. a compound represented by formula II with a compound represented by the formula HO(CH<sub>2</sub>)<sub>n</sub>NH<sub>2</sub>, providing a compound represented by formula III, then reacting the resultant compound with triethylamine and methanesulfonyl chloride, affording a compound represented by formula IV and subsequently reacting the prepared compound with a compound represented by the formula n-R3Br.



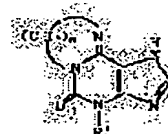
I



II



III



IV

## LEGAL STATUS

[Date of request for examination]

22.10.2003

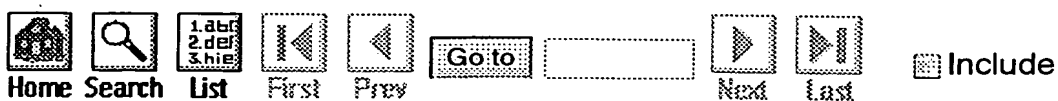
[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]



## MicroPatent® PatSearch Fulltext: Record 1 of 1

**Search scope:** US Granted US Applications EP-A EP-B WO JP (bibliographic data only)  
DE-C,B DE-A DE-T DE-U GB-A FR-A

**Years:** 1991-2005

**Patent/Publication No.:** ((JP10158267))

[Order/Download](#) [Family Lookup](#) [Find Similar](#) [Legal Status](#)

[Go to first matching text](#)

**JP10158267 A**  
**NEW PURINE DERIVATIVE AND**  
**MEDICINAL COMPOSITION**  
**COMPRISING THE SAME**  
MEDEI SCI PURANINGU:KK

**Abstract:**

**PROBLEM TO BE SOLVED:** To obtain a new purine derivative, having an oxo group and a specific condensed ring group at specified sites, capable of selective inhibiting actions on cyclic adenosine 3',5'-monophosphate (AMP)-specific phosphodiesterases and useful as a bronchodilator or a therapeutic agent for osteopathy. **SOLUTION:**

This compound is represented by formula I [ $R^1$  to  $R^3$  are each H, a (lower alkyloxy or acyl- substituted) 1-6C alkyl; (n) is 2-4], e.g. 4-propyl-4,5,7,8-tetrahydro-1H-imidazo[1,2-i]purin-5-one. The compound represented by formula is obtained by reacting, e.g. a compound represented by formula II with a compound represented by the formula  $HO(CH_2)_nNH_2$ , providing a compound represented by formula III, then reacting the resultant compound with triethylamine and methanesulfonyl chloride, affording a compound represented by formula IV and subsequently reacting the prepared compound with a compound represented by the formula  $n-R^3Br$ .

[loading drawing]

**Inventor(s):**

MIYAMOTO KENICHI  
KASUGAI SHOHEI  
WAKI YOSHIHIRO  
SAWANISHI HIROYUKI

**Application No.** 08319478 JP08319478 JP, **Filed** 19961129, **A1 Published** 19980616

**Int'l Class:** C07D48714

A61K03152 A61K03152 A61K03152 A61K03152

**Patents Citing This One (5):**

- ✦ US6489331 B1 20021203 Kyowa Hakko Kogyo Co., Ltd.  
Remedies for diabetes
- ✦ WO0001388 A1 20000113 KYOWA HAKKO KOGYO CO., LTD.  
REMEDIES FOR DIABETES
- ✦ WO0147931 A1 20010705 KYOWA HAKKO KOGYO CO., LTD.  
FUSED PURINE DERIVATIVES
- ✦ WO2002094321 A1 20021128 TANABE SEIYAKU CO., LTD.  
COMPOSITIONS FOR PROMOTING HEALING OF  
BONE FRACTURE
- ✦ WO2004011469 A1 20040205 KYOWA HAKKO KOGYO CO., LTD.  
CELL DIFFERENTIATION INDUCTOR



For further information, please contact:

[Technical Support](#) | [Billing](#) | [Sales](#) | [General Information](#)